

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A system comprising:

a first storage system for storing data,

wherein in a first situation a host computer performs read and write operations on the data stored in the first storage system by using a first protocol and a first identifier of said first storage system; and

a switch apparatus connectable to the first storage system,

wherein the first storage system includes a ~~plurality of ports~~ port connectable to the switch apparatus,

wherein the switch apparatus comprises:

a first port connectable to the first storage system,

a second port connectable to the host computer,

a third port connectable to a second storage system for storing data,

~~wherein said host computer performs read and write operations on the data stored in the second storage system, and~~

a plurality of processing apparatuses connectable to the first, second and third ports,

wherein in a second situation the host computer is connected to the switch apparatus and the switch apparatus sets a relationship between the first identifier of the first storage system and a second identifier of the second storage system.

wherein the plurality of processing apparatuses convert a the first protocol, which is used in a first-connection between the plurality of portsport of the first storage system and the first port of the switch apparatus and which is used in a ~~second~~-connection between the host computer and the second port of the switch apparatus, to a second protocol which is used in a ~~third~~ connection between the second storage system and the third port of the switch apparatus,

wherein in a third situation the host computer performs read and write operations on the data by using the first protocol and the first identifier and the switch apparatus controls converting the first protocol to the second protocol to perform read and write operations on the data of the second storage system when the switch apparatus transfers data from the first storage system to the second storage system, and

wherein said system changes between said first, second and third situations as needed.

2. (original) The system according to claim 1, wherein the switch apparatus converts the second protocol to the first protocol when the switch apparatus transfers data from the second storage system to the first storage system.

3. (original) The system according to claim 2, wherein the first protocol is a SCSI protocol and the second protocol is a fiber channel protocol.

4. (original) The system according to claim 3, wherein the plurality of processing apparatuses of the switch apparatus execute a migration of data from the first storage system to the second storage system via the first port and the third port.

5. (original) The system according to claim 4, wherein the switch apparatus further comprises a memory in which information for converting the first protocol to the second protocol and information for converting the second protocol to the first protocol are stored.

6. (original) The system according to claim 4, wherein the migration is executed while the host computer is access the first storage system.

7. (original) The system according to claim 6, wherein the switch apparatus converts a command for responding to the first protocol to the first storage system, said command being transferred by the host computer, to a command for responding to the second protocol to the second storage system to transfer the converted command to the second storage system.

8. (currently amended)A switch apparatus comprising:
a first port connectable to a first storage system for storing data,

wherein in a first situation a host computer performs read and write operations on the data stored in the first storage system by using a first protocol and a first identifier of said first storage system;

a second port connectable to the host computer;

a third port connectable to a second storage system for storing data;

~~wherein said host computer performs read and write operations on the data stored in the second storage system; and~~

a plurality of processing apparatuses connectable to the first, second and third ports,

wherein in a second situation the host computer is connected to the switch apparatus and the switch apparatus sets a relationship between the first identifier of the first storage system and a second identifier of the second storage system,

wherein the plurality of processing apparatuses ~~converts~~ a first protocol which is used in a first connection between the plurality of ports a port of the first storage system and the first port of the switch apparatus and which is used in a ~~second~~ connection between the host computer and the second port of the switch apparatus to a second protocol which is used in a third connection between the second storage system and the third port of the switch apparatus,

wherein in a third situation the host computer performs read and write operations on the data by using the first protocol and the first identifier and the switch apparatus controls converting the first protocol to the second protocol to perform read and write operations on the data of the second storage

system when the switch apparatus transfers data from the first storage system to the second storage system, and
wherein said system changes between said first, second and third situations as needed.

9. (previously presented) The switch apparatus according to claim 8, wherein the switch apparatus converts the second protocol to the first protocol when the switch apparatus transfers data from the second storage system to the first storage system.

10. (original) The switch apparatus according to claim 9, wherein the first protocol is a SCSI protocol and the second protocol is a fiber channel protocol.

11. (original) The switch apparatus according to claim 10, wherein the plurality of processing apparatuses of the switch apparatus execute a migration of data from the first storage system to the second storage system via the first port and the third port.

12. (original) The switch apparatus according to claim 11, wherein the switch apparatus further comprises;

a memory in which information for converting the first protocol to the second protocol and information for converting the second protocol to the first protocol are stored.

13. (original) The switch apparatus according to claim 12, wherein the migration is executed while the host computer is accessing the first storage system.

14. (original) The switch apparatus according to claim 13, wherein the switch apparatus converts a command for responding to the first protocol to the first storage system, said command being transferred by the host computer, to a command for responding to the second protocol to the second storage system to transfer the converted command to the second storage system.

15. (currently amended) A system comprising:
a first storage system for storing data,
wherein in a first situation a host computer performs read and write operations on the data stored in the first storage system by using a first protocol and a first identifier of said first storage system;
a switch apparatus connectable to the first storage system; and
a second storage system connectable to the switch apparatus, the second storage system stores data,
~~wherein said host computer performs read and write operations on the data stored in the second storage system,~~
wherein the first storage system includes a ~~plurality of ports~~port connectable to the switch apparatus,
wherein the second storage system includes a ~~plurality of ports~~port connectable to the switch apparatus,

wherein the switch apparatus comprises:

a first port connectable to the first storage system,

a second port connectable to a host computer,

a third port connectable to thea second storage system, and

a plurality of processing apparatuses connectable to the first, second

and third ports,

wherein in a second situation the host computer is connected to the switch apparatus and the switch apparatus sets a relationship between the first identifier of the first storage system and a second identifier of the second storage system.

wherein the plurality of processing apparatuses convert a first protocol which is used in a ~~first~~connection between the ~~plurality of ports~~port of the first storage system and the first port of the switch apparatus and which is used in a ~~second~~connection between the host computer and the second port of the switch apparatus to a second protocol which is used in a thirdconnection between the ~~plurality of ports~~port of the second storage system and the third port of the switch apparatus,

wherein in a third situation the host computer performs read and write operations on the data by using the first protocol and the first identifier and the switch apparatus controls converting the first protocol to the second protocol to perform read and write operations on the data of the second storage system when the switch apparatus transfers data from the first storage system to the second storage system, and

wherein said system changes between said first, second and third situations as needed.